

- Fig 1

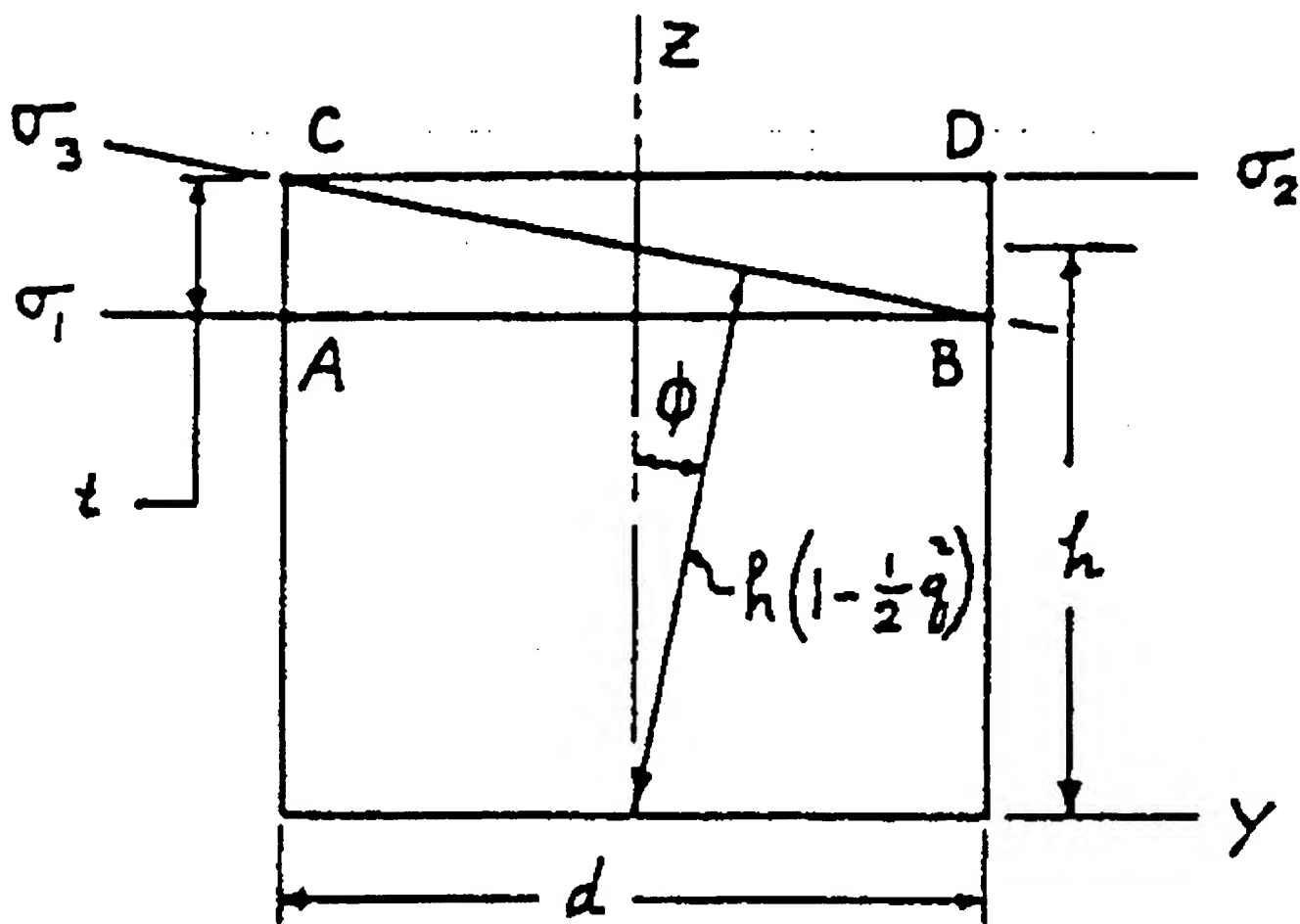


Fig 2

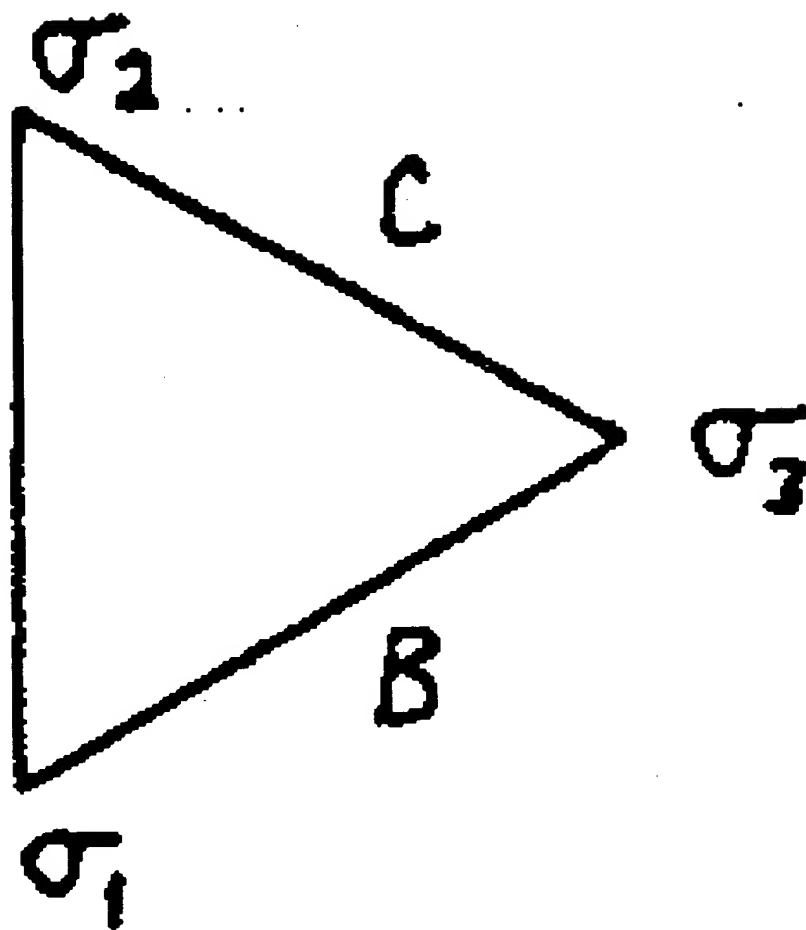
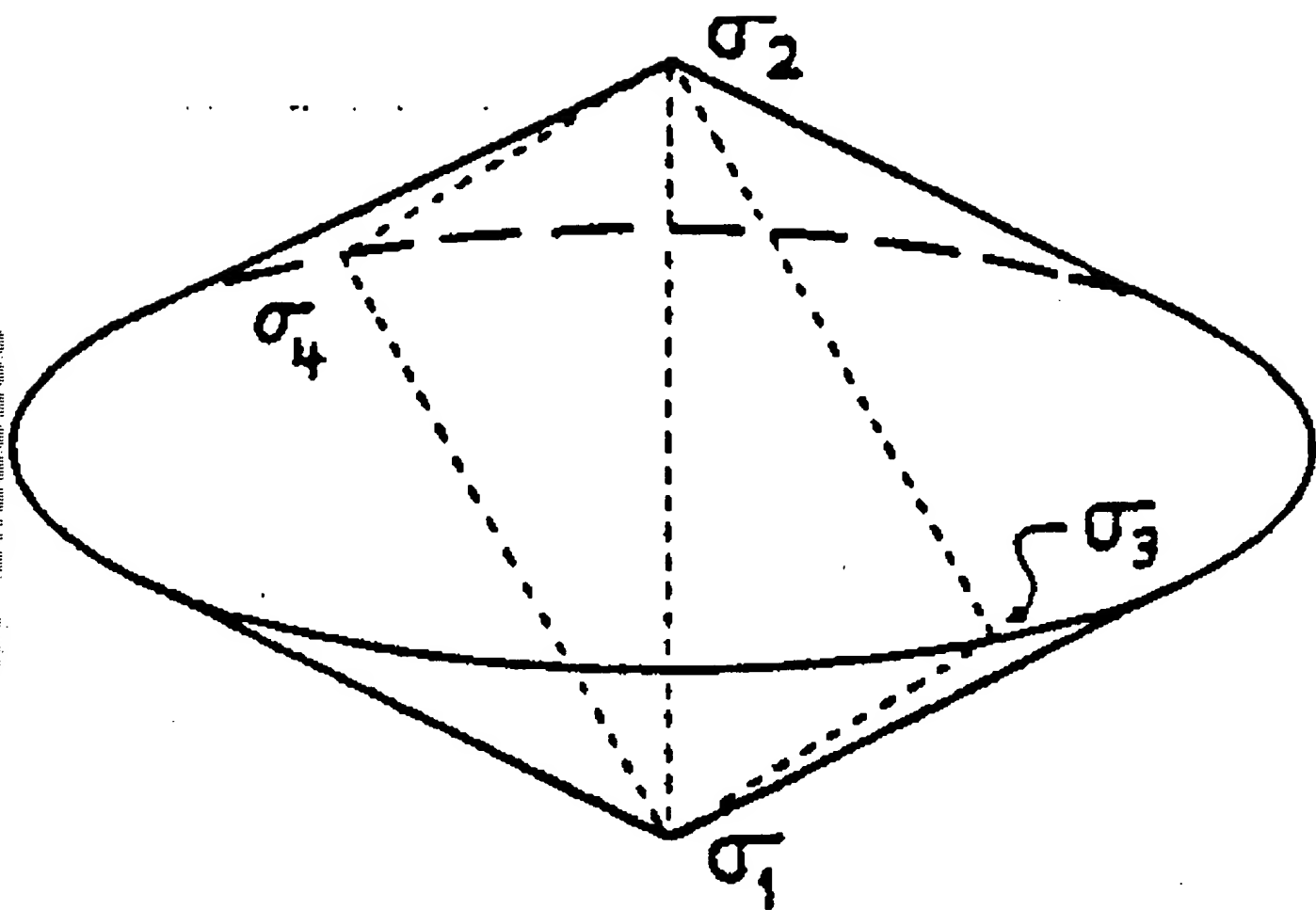


Fig 3



09507542.024800
003720.24520560

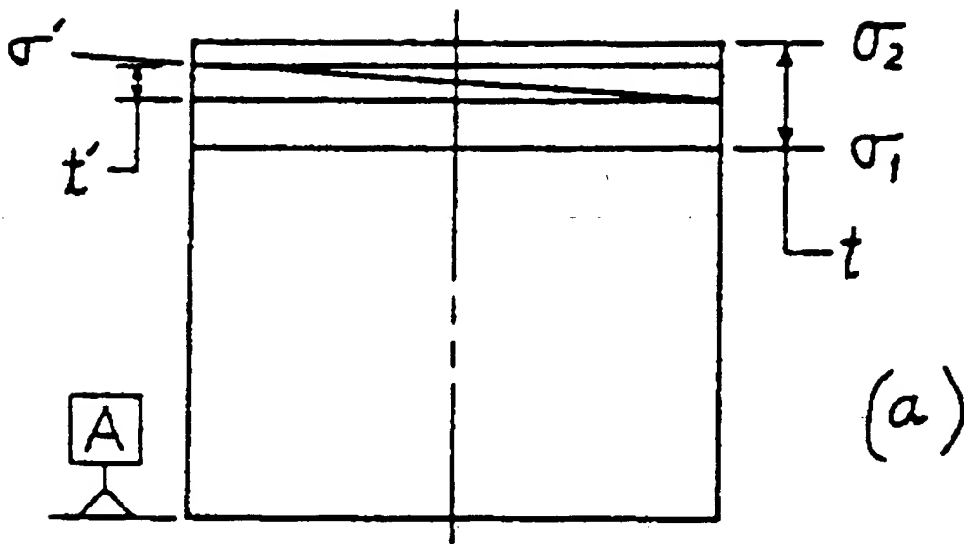


Fig 4a

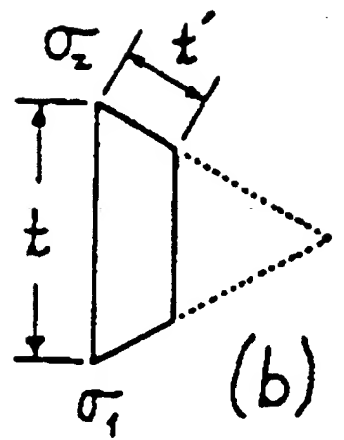


Fig 4b

(a)

Diagram (c) shows a triangular element with a vertical height t'' . The left vertical face is subjected to a normal stress σ_1 . The top horizontal face is subjected to a normal stress σ_2 . The right slanted face is also subjected to a normal stress. The element is labeled (c).

Fig 5c

000120 24920560

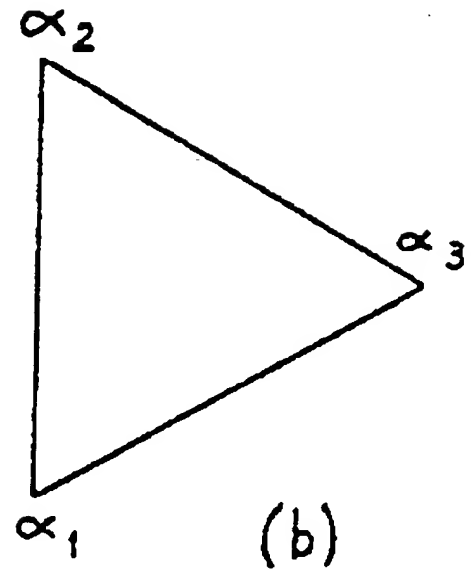
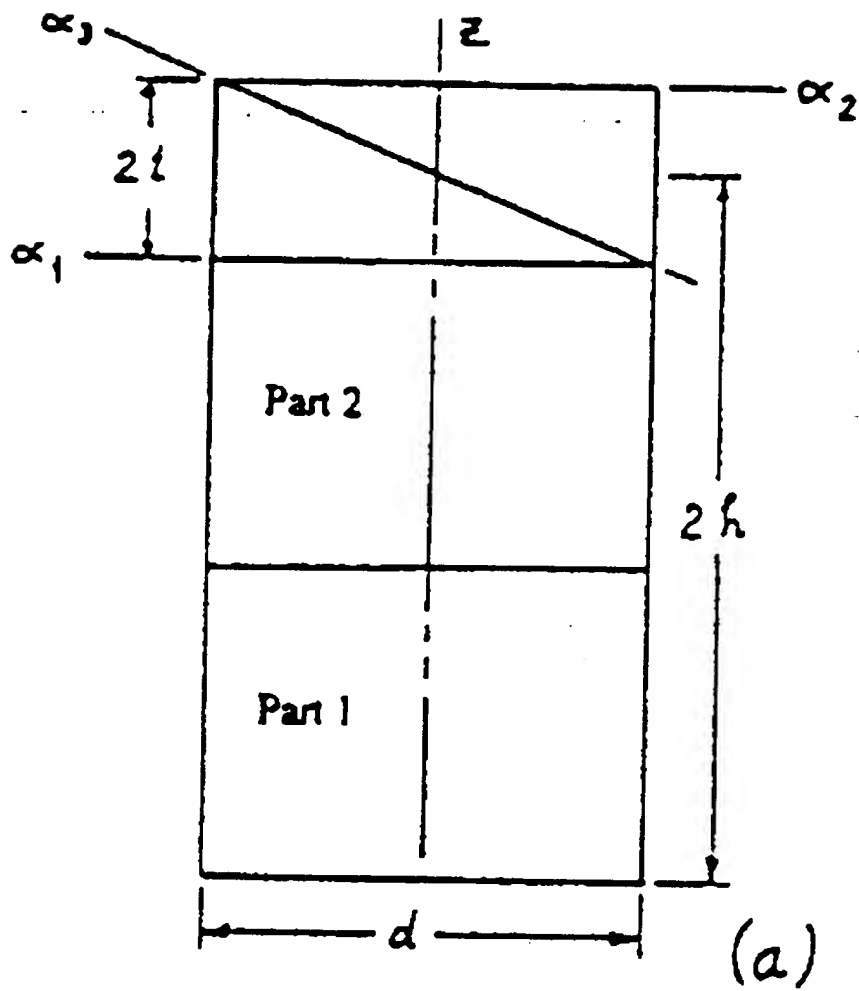
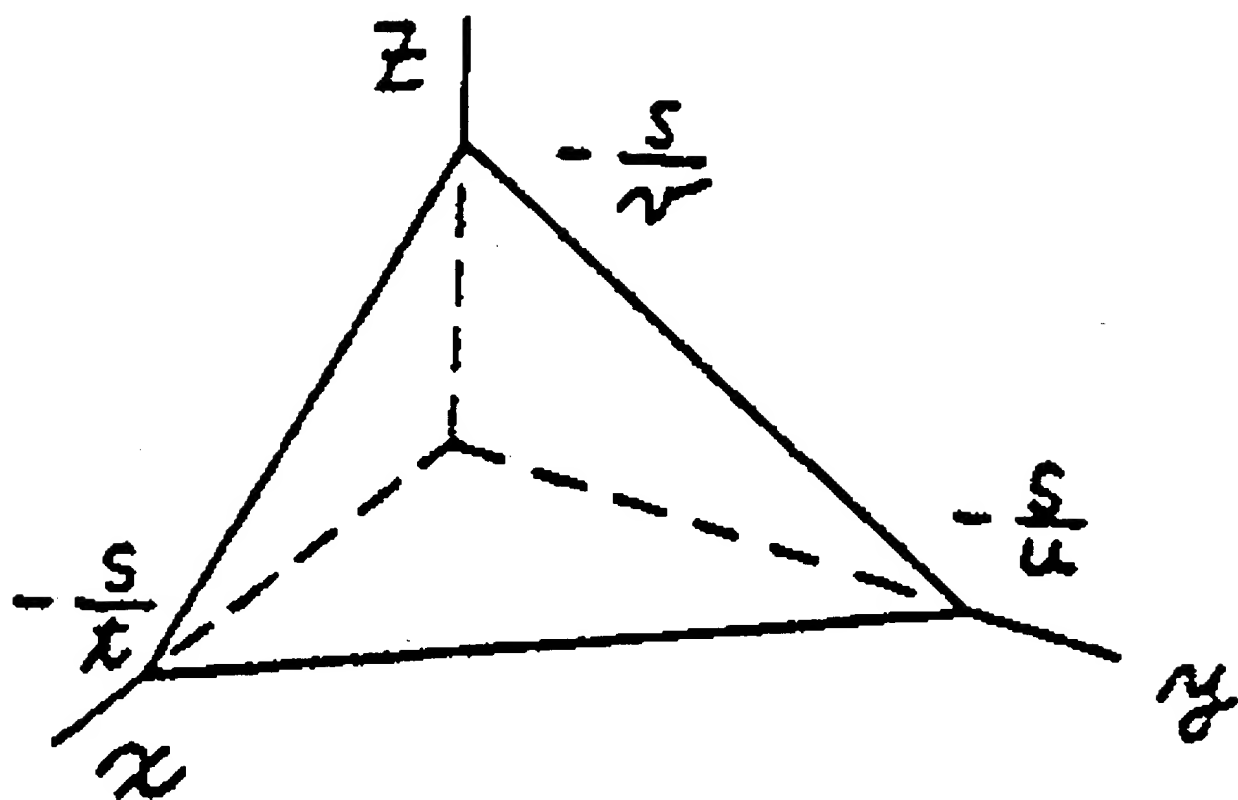


Fig 6a

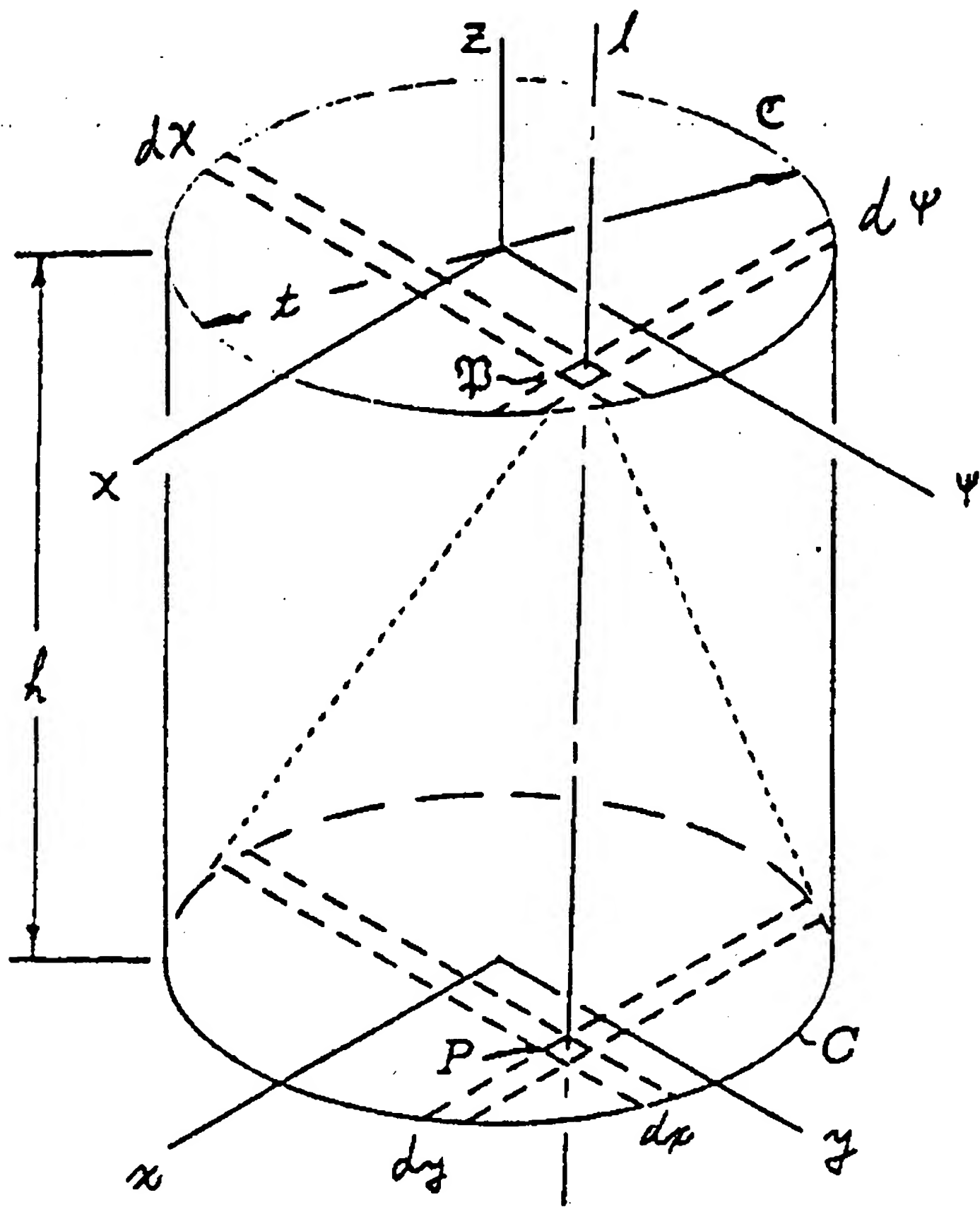
Fig 6b

Fig 7



09507542, 021800

Fig 8



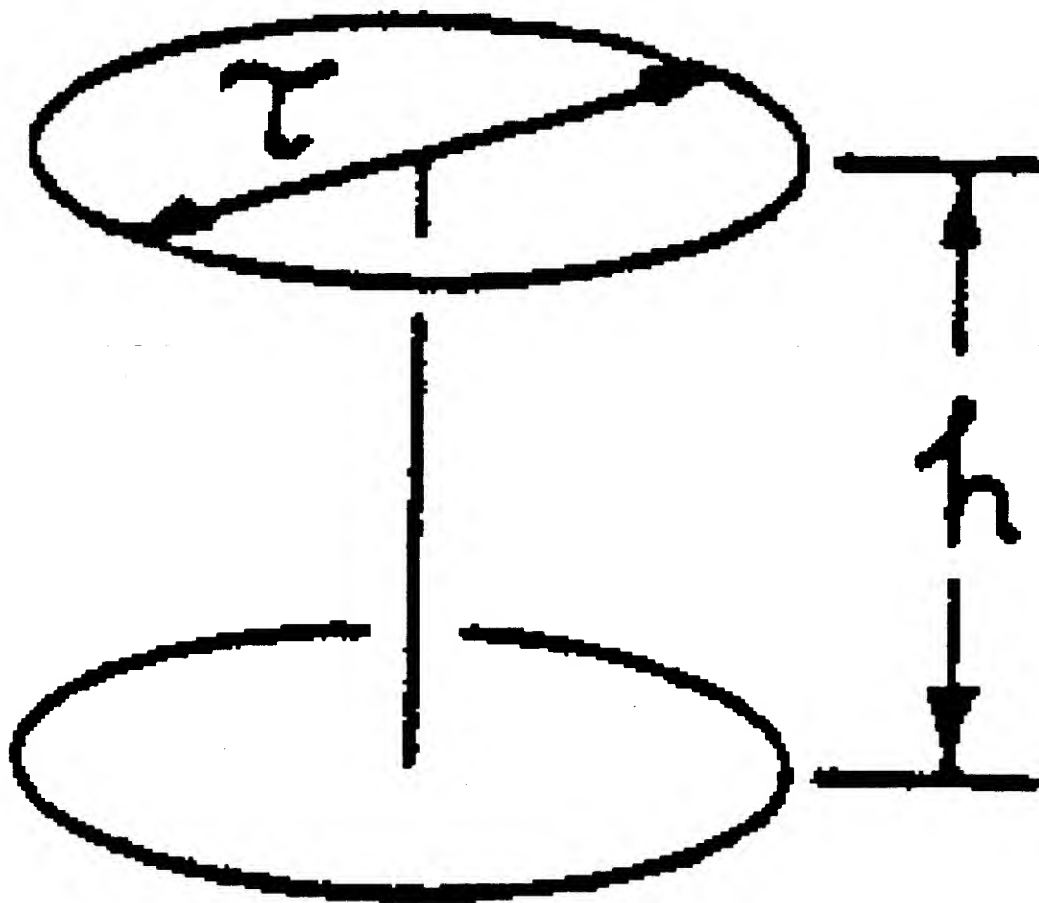
A 3D perspective diagram of a rectangular block. The height of the block is labeled h on the left vertical edge. The top surface is divided into a central rectangular region and four triangular regions at the corners. The width of the central rectangular region on the top surface is labeled t . The width of the triangular regions on the top surface is labeled t' . The right vertical edge is labeled R . The bottom edge of the block is labeled R . The block is shown with dashed lines for hidden edges.

189

११

A

Fig 10



09507542.021800

Fig 11

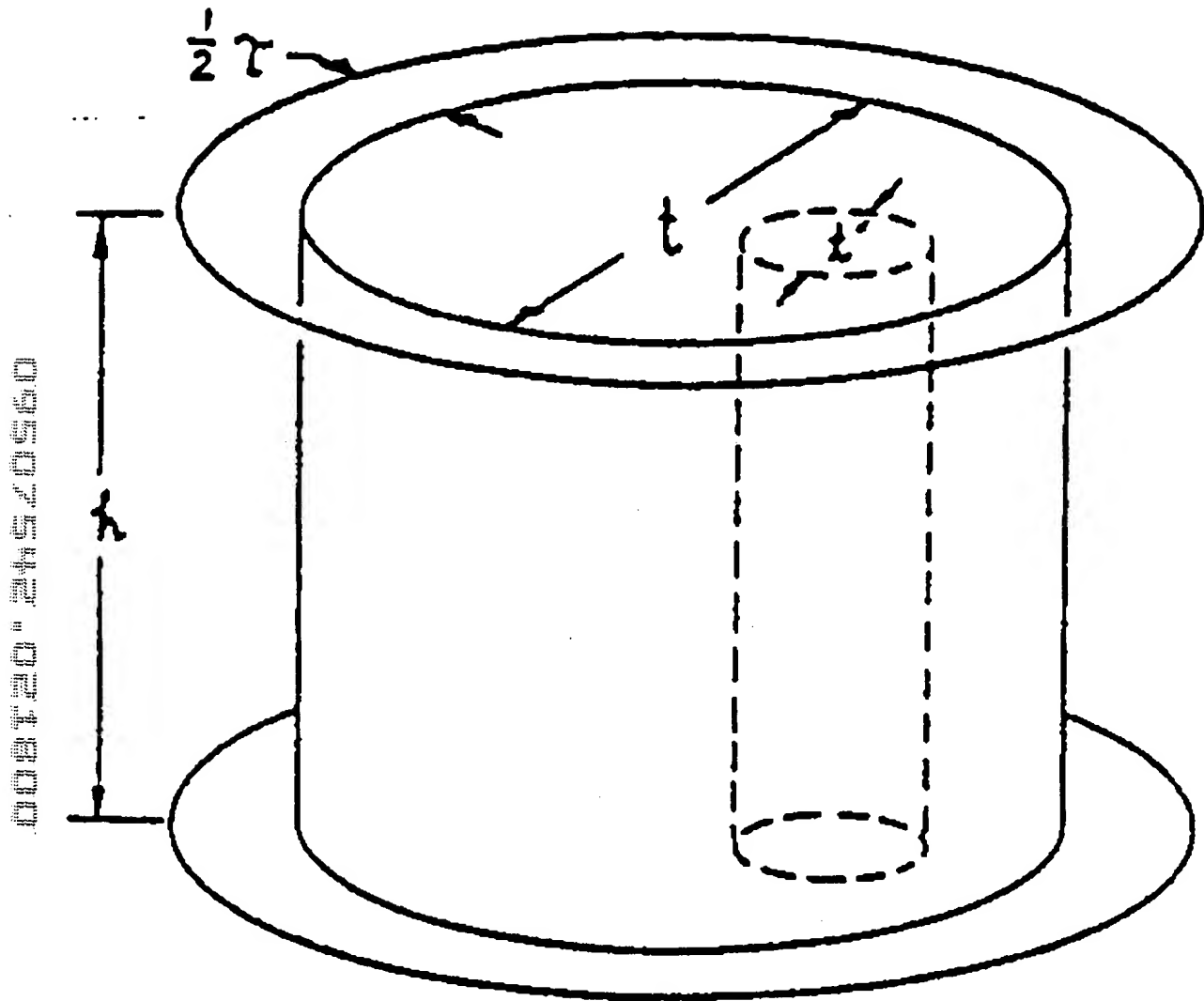
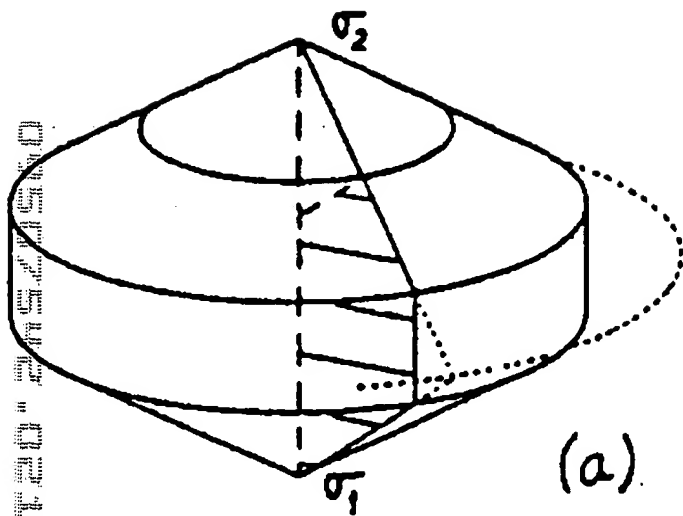
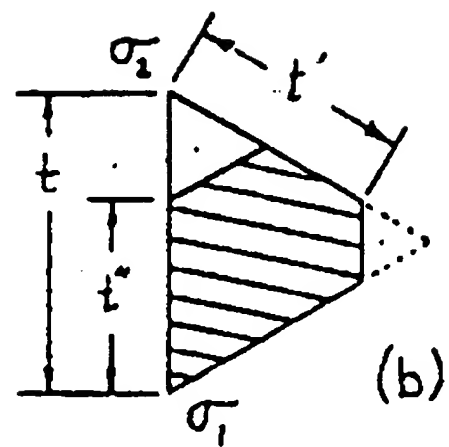


Fig 12a



(a)

Fig 12b



(b)

```

graph TD
    E1[E1: Geometry Engine (Commercial)] <--> M1[M1: Geometry Definition System]
    M1 <--> E2[E2: Constraint Solver (Commercial)]
    E1 --> BRep(B-Rep Solid Model)
    E2 -- "Selected constraints" --> DTG(D&T Graph)
    BRep --> M2[M2: Dimensioning Module]
    DTG --> M2
    M2 -- "Populated DT Graph" --> M4[M4: Tolerancing Module]
    M4 -- "Global Model" --> M6[M6: Tolerance Allocation Module]
    M4 --> M3[M3: Global Model Visualization Module]
    M5[M5: D&T Schema Advisor] -- "Suggestions" --> M4
    M6 -- "Local Model (geometric)" --> M7[M7: Local Model Visualization]
    M6 -- "Local Model (algebraic)" --> E3[E3: Statistical Tolerance Analysis Package (Commercial)]

```

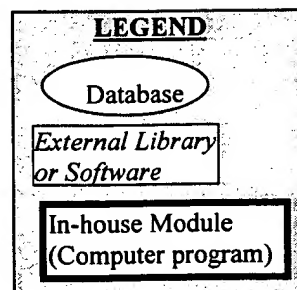


Figure 13 System Architecture

008720 24520560

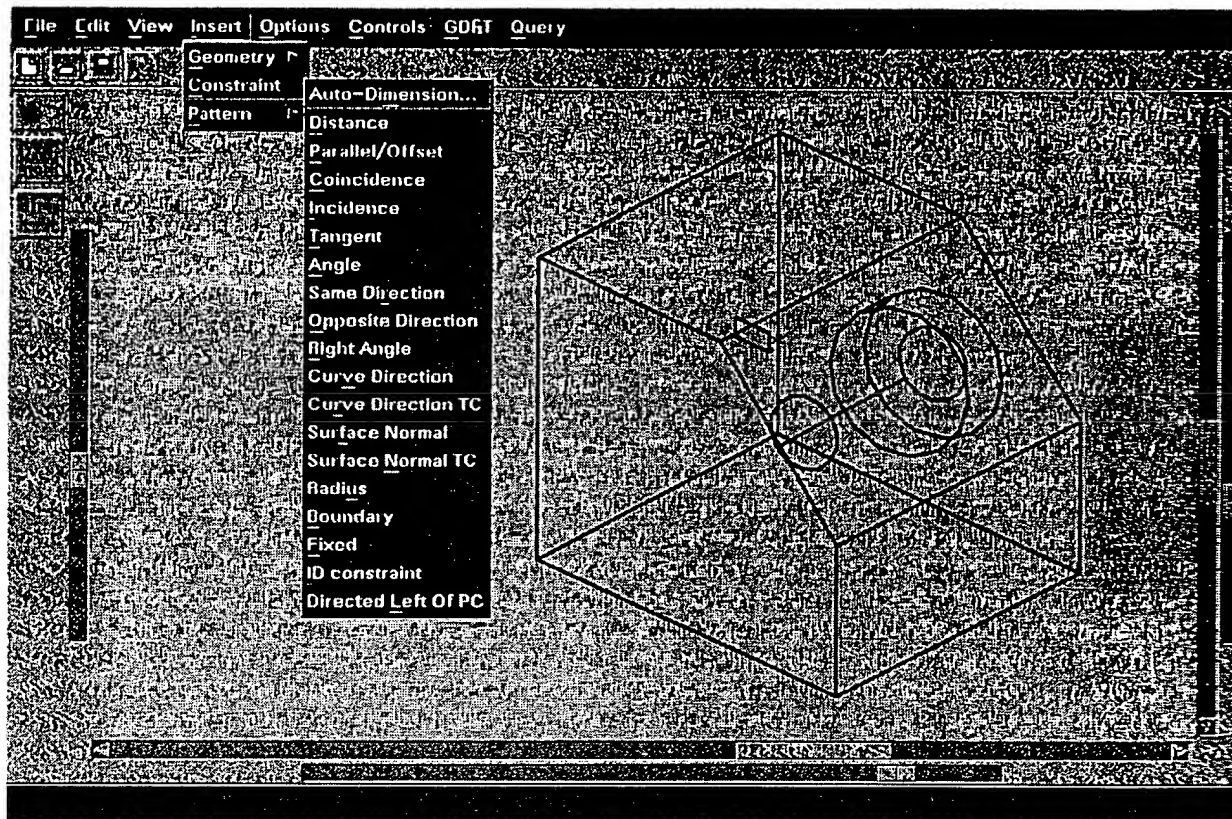


Figure 14

003720:245/0560

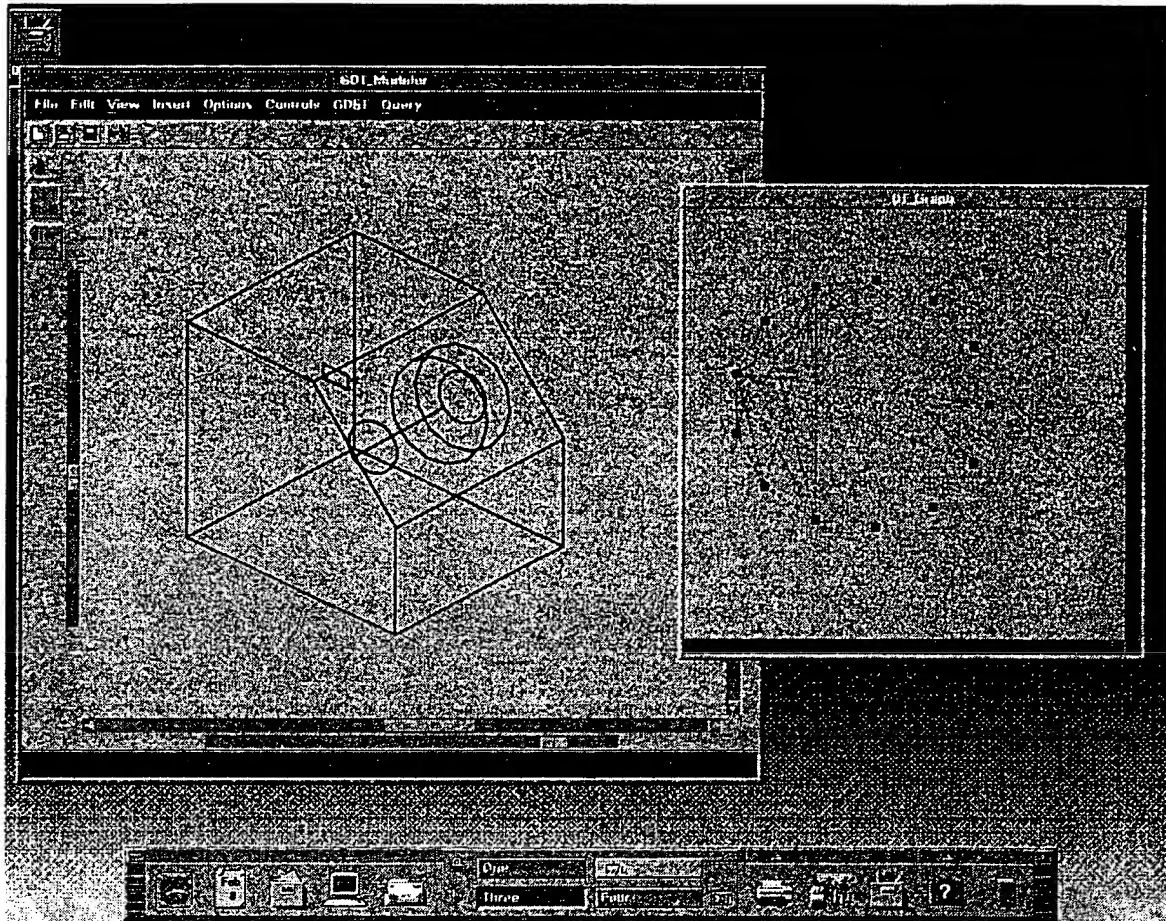


Figure 15

000720"245/0560

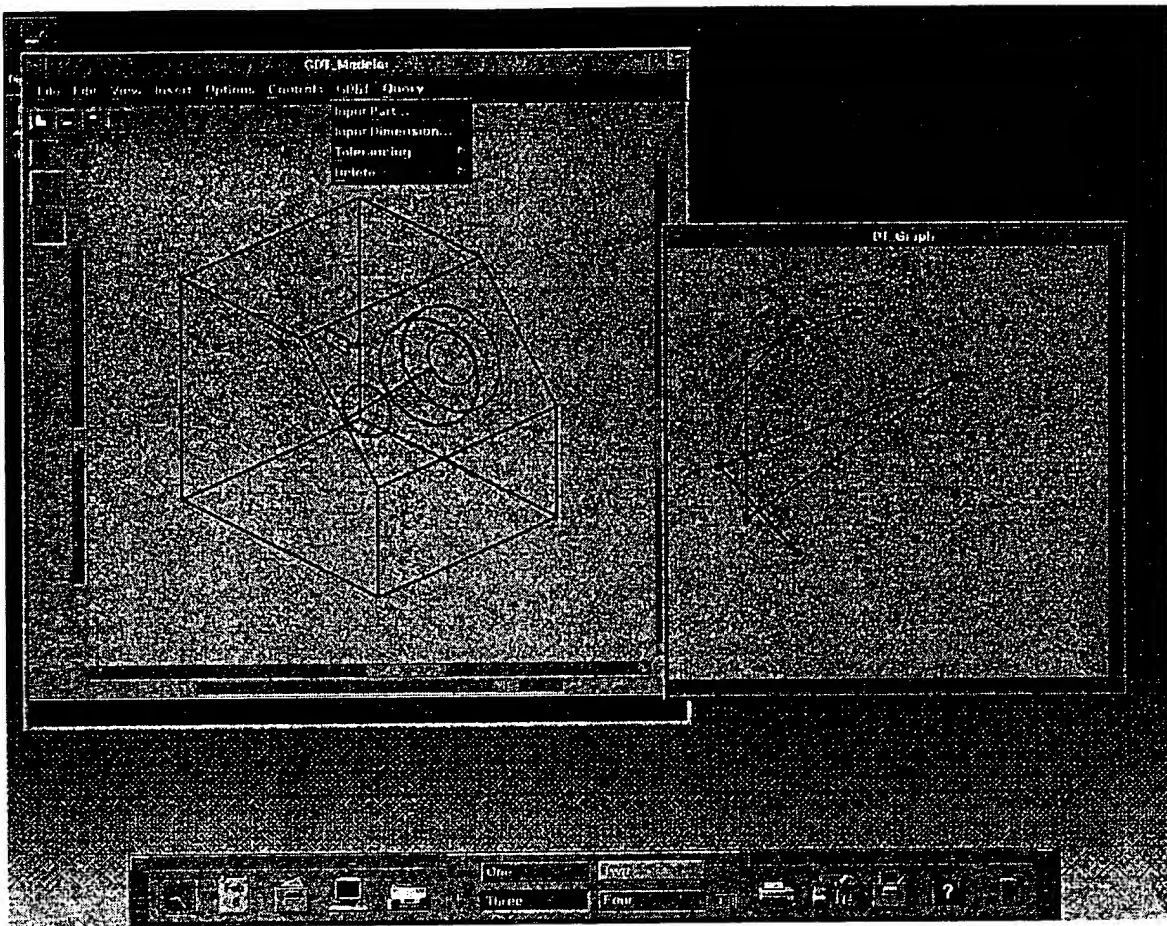


Figure 16

008T20" 24520560

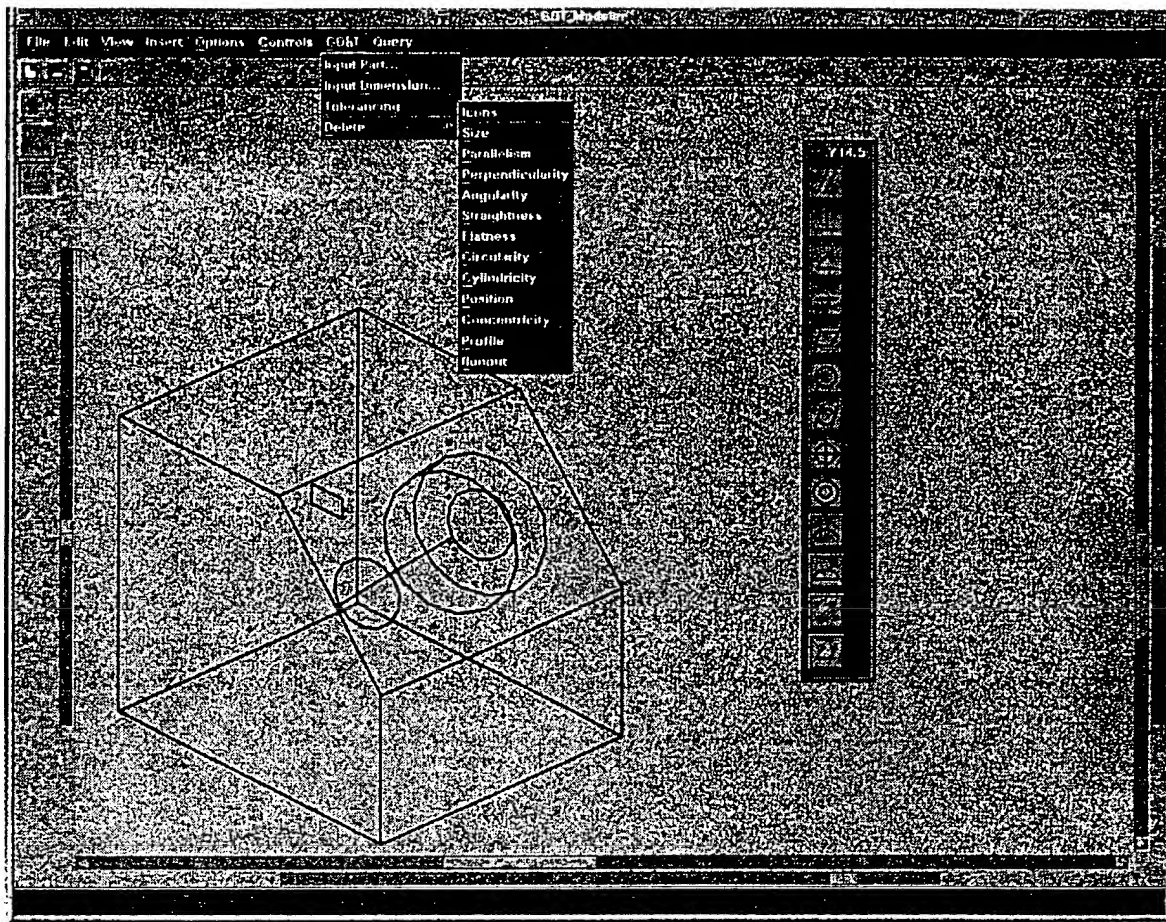


Figure 17

008420" 24520560

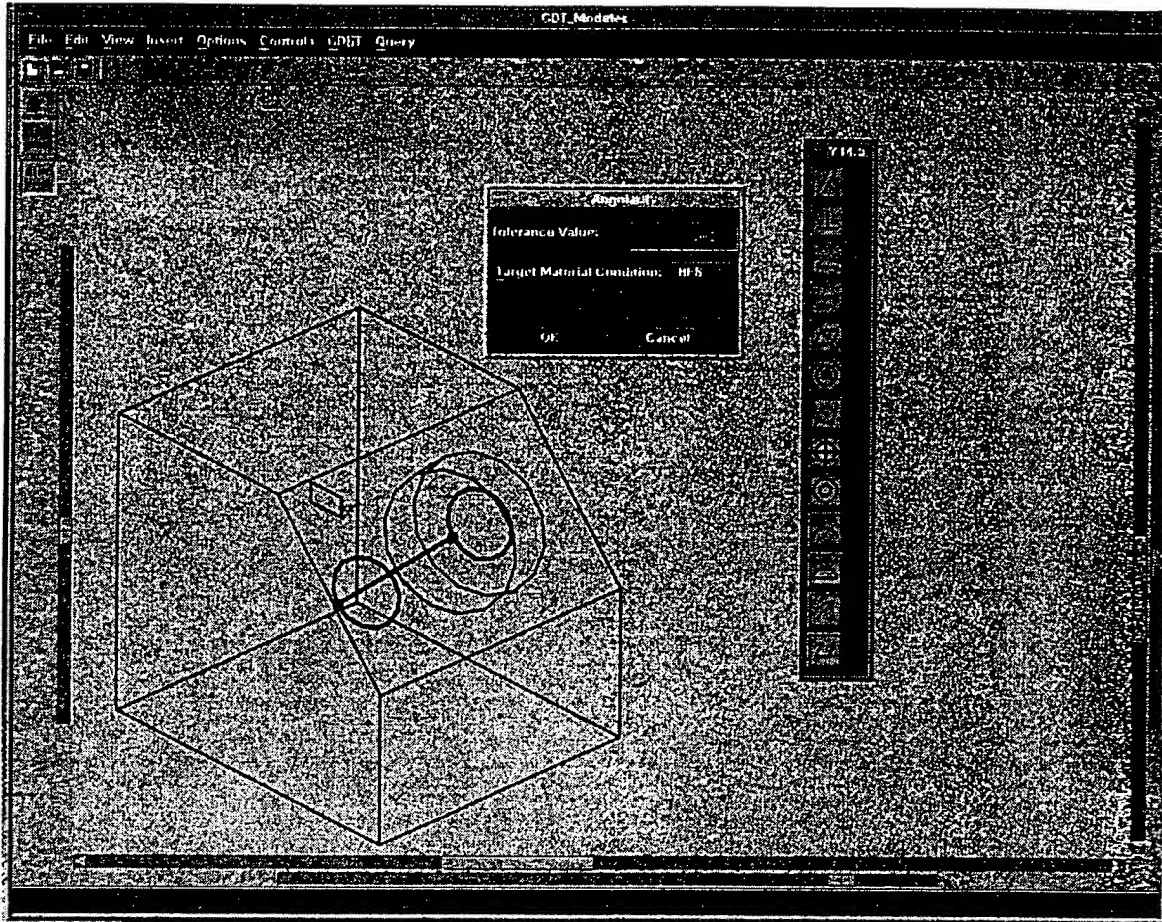


Figure 18

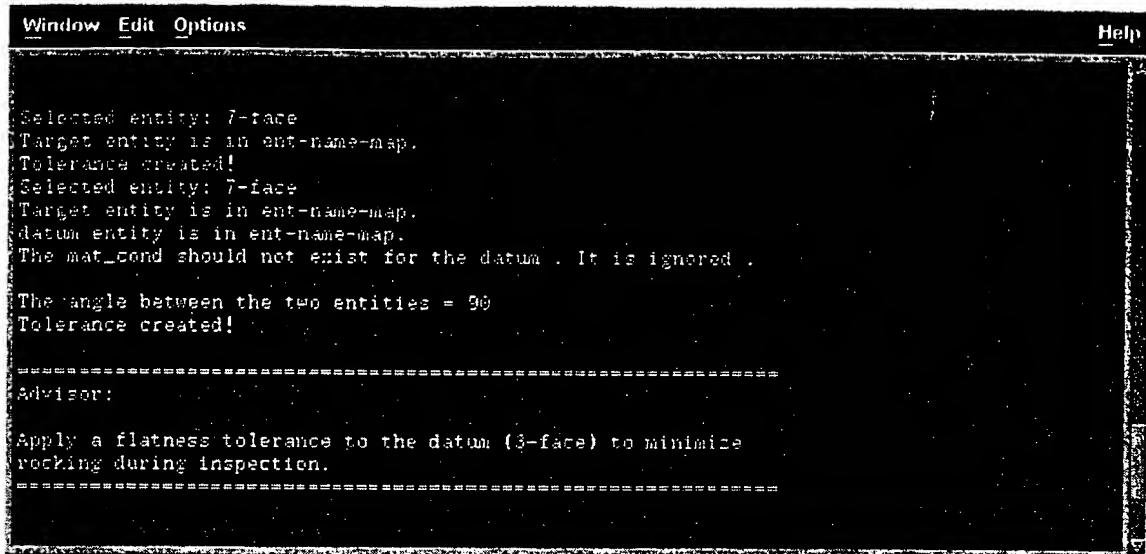


Figure 19



Figure 20

004720" 24520560

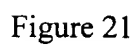


Figure 21

003720" 24520560

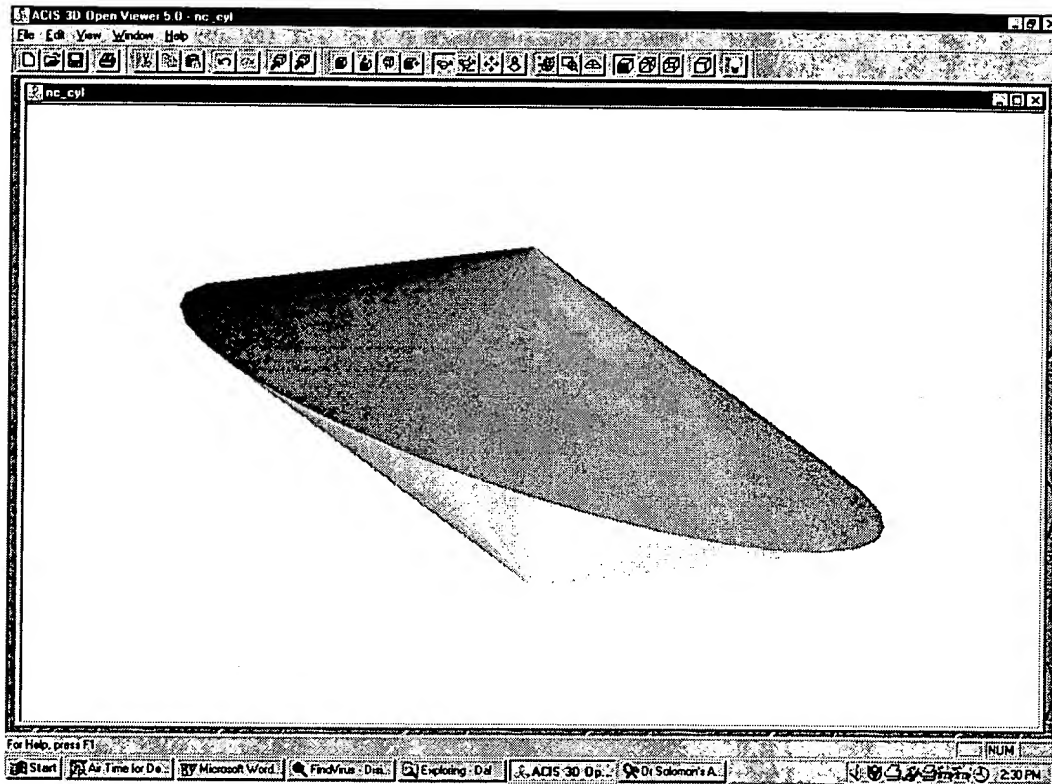


Figure 22

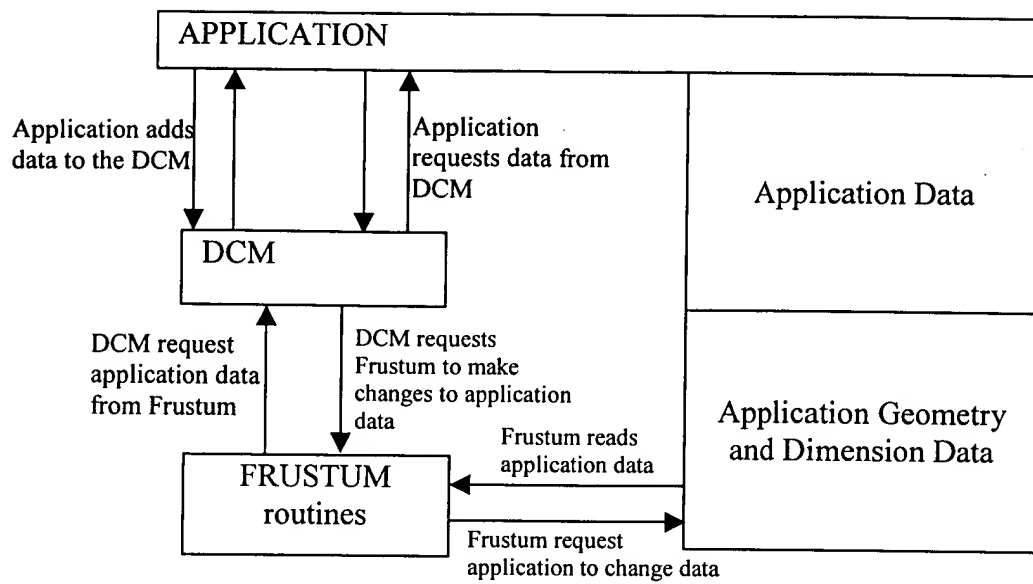


Figure 23

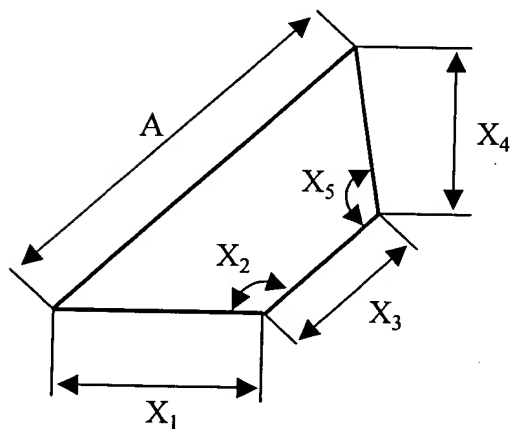


Figure 24

008720-24520560

003120-24520560

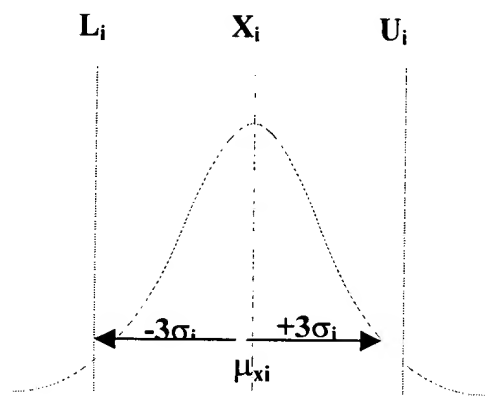


Figure 25

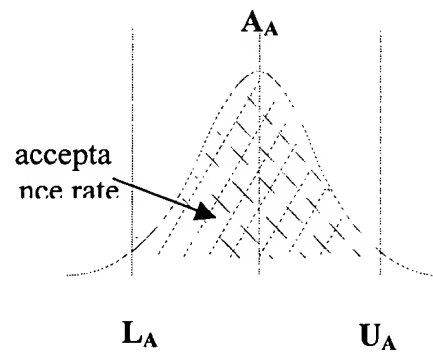


Figure 26